And the declination angles for major world cites are listed as follow:

City	Declination Angle	City	Declination Angle
Anchorage	22°E	Calgary	18°W
Atlanta	4°W	Chicago	3°W
Bombay	1°W	Denver	10°E
Boston	16°W	Jerusalem	3°E
London	4°W	Rio De Janeiro	21°W
Little Rock	3°E	San Francisco	15°E
Livingston, MT	14°E	Seattle	19°E
Munich	1°E	Shanghai	5°W
New York City	14°W	Toronto	11°W
Orlando	5°W	Vancouver	20°W
Oslo	2°W	Washington DC	10°W
Paris	2°W	Waterbury, CT	14°W

Malfunction	Problem
Incorrect Compass Reading	Wrong Calibration or the environment of operation is changed. Do the Calibration again with correct instruction stated in the user manual.
"Err" display in Compass Mode	External Magnetic Interference, such as heavy metal, home appliance, computer and high power cable, etc... Escape from the interference or re-calibration again.
Incorrect Temperature Reading	Interference from direct sunlight, air conditioner or Heater vent. Move the unit away from the interference.
Display readout fades and Incorrect readings	Poor battery or bad contacts. Take out battery and install again or Install a new battery.
Black Display	Temperature too hot, or display exposed to direct sunlight too long.
Display shows irregular figures	Take out battery and install again.

Art No.:PYLE_SPORTS-PAW1

PYLE SPORTS

DIGITAL

ALTIMETER

WEATHER FORECAST • COMPASS WATCH

SENSOR TECHNOLOGY • ALTIMETER • COMPASS
• BAROMETER • THERMOMETER • WEATHER FORECAST

PAW1

INSTRUCTION MANUAL

www.pyleaudio.com

Features

Altimeter
- Altitude Measuring Range: -500 to 9000 meter or -1600 to 29500 feet
- Resolution of 0.5 meter or 1 feet
- Total Altitude Gain
- Trip timer: 9hr 59min 59sec
- Current ascending or descending Speed
- Average ascending or descending Speed

Electronic Compass
- 3-mode display showing a compass arrow direction, numeric and cardinal readouts
- with highly accuracy of +/- 10 degree and a resolution of 1 degree
- a magnetic distortion alerts "Err" when external magnetic interference is occur
- automatic shut-off

Barometer
- Pressure range 300 hPa/mbar to 1100 hPa/mbar (4.40 psi to 16.00 psi)
- Resolution of 1 hPa/mbar (0.01 psi)
- Max./ Min. memory for pressure
- Barometric weather forecast (Sunny, Slightly Cloudy, Cloudy and Rainy)
- Pressure Trend Indicators

Professional Stopwatch with 30 Lap/ Split Memory
- 1/100 sec precision stopwatch
- Display in hours, minutes, and seconds up to maximum of 10 hours
- Total 30 Memories for 29 Lap/Split and 1 Fastest Lap
- Fastest Lap Calculation

Thermometer Alarm Clock
- Perpetual calendar with day of week
- Snooze alarm clock
- Thermometer (-10°C to +50°C)
- 12/ 24 hr, °C/ °F selectable
- Max./ Min. memory for Thermometer

Display Icons & Keys Illustration

Icons:

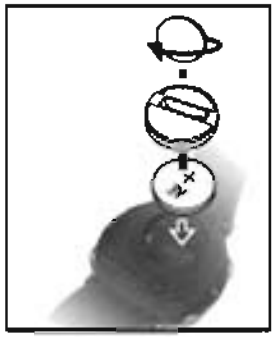
- - Weather Forecast Window
- - Pressure Trend Indicator (Weather)
- - Heading Direction (Compass)
- - Ascending (Altimeter)
- - Descending (Altimeter)
- PM - Afternoon
- - Battery Low
- MAX - Maximum memory
- MIN - Minimum memory
- °C - Temperature in Celsius
- °F - Temperature in Fahrenheit

- TIME - Clock mode
- ALTI - Altimeter mode
- COMP - Compass mode
- - Alarm ON / OFF
- Z^Z - Alarm Snooze
- hPa / psi - Barometer Unit

Battery Installation

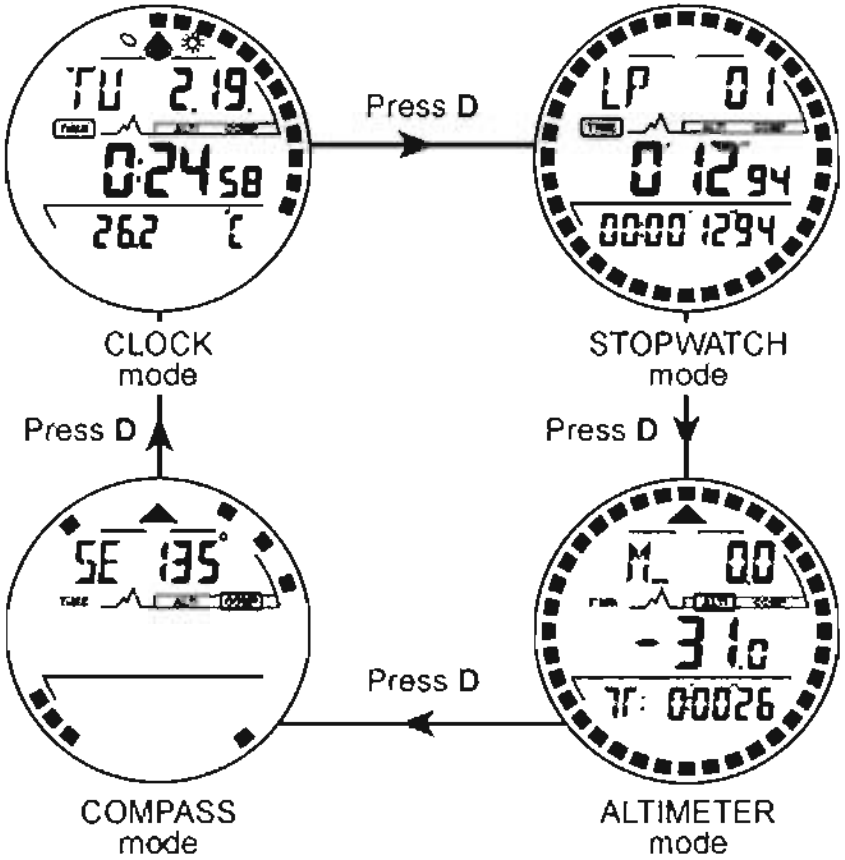
Computer Watch

Remove the battery cover from the bottom of the computer using a small coin. Install the 3V battery (CR2032) with the position(+) pole facing the battery cover and replace the cover as in Fig. 1.



To turn on and display different mode

Press button **D** to turn on and press button **D** again to switch to differen modes.

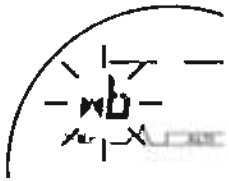


To wake up and set your computer

- Press and hold both button A and C until all segment on

Barometer Unit Setting

- Right after all segment on, the "mb" digit will start to flicker.
- To select "mb" or "psi", press button **C** and then press buttton **A** to confirm.



Barometer and Weather States Adjustment

Barometer

1. To adjust the barometer and weather states, weather forecast function can have a good initialization.
2. Right after the barometer unit setting, the barometer digits will start to flicker.
3. Press button **C** to set and then press button **A** to confirm.
4. Repeat Step 3 to set your desire digits.
5. Right after the barometer digits setting, press the button **C** to select different states and then press button **A** to confirm.

Weather Forecast

1. The unit is capable of detecting atmospheric pressure changes to predict the weather for the forthcoming 8 hours.
2. The weather forecast is meant for the next 8 hours. It may not necessarily reflect the current weather situation.

3. The accuracy of all general pressure-based technology weather forecast is about 70%, and therefore, cannot be held responsible for any inconveniences so caused by an inaccurate one.
4. According to the barometric change, the pressure trend will indicate the weather is going fine (Fig. 1 UP), stable (Fig. 2 Stable) a and nd going worse (Fig. 3 Down).

Fig. 1

TENDENCY
Going Fine

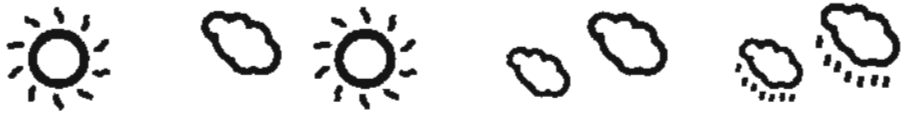
Fig. 2

TENDENCY
Stable

Fig. 3

TENDENCY
Going Worse

There are four different states.
Sunny, Slightly Cloudy, Cloudy and Rainy



Sunny Slightly Cloudy Cloudy Rainy

Meter / Feet Selection

- Right after the weather states setting, the "M" digit will start to flicker.
- To select "M"(Meter) or "FT"(Feet), press button **C** and then press button **A** to confirm.

Temperature Unit Seeing

- Right after the Meter / Feet selection, the Celsius "°C" digit will start to flicker.
- To select "°C"(Celsius) or "°F"(Fearh), press button **C** and then press buttton **A** to confirm.

Clock Setting

- Right after °C / °F selection, the "24H" digits will start to flicker.
  Press button **C** to select 12H or 24H hour format.
- Press buttton **A** to confirm and the hour digits will start to flicker.
- To set hour, press button **C** to adjust the hour digits to desire value and then press button **A** to confirm.
- Right after the confirmation, the minute digits will start to flicker.
- To set minutes, press button **C** to adjust the minute digits to desire value and then press button **A** to confirm.
- Repeat the process until you get a desire value of the year, month and the date.

12 /24 Hour Format

Hour digit

Minute digit

Year digit

Month digit

Date digit

Snooze Alarm

- To set alarm time, in Clock mode, press and hold button A until the alarm hour digit start to flicker
- Press button C to adjust the hour digit and then press button A to confirm.
- Right after the confirmation, the alarm miniute digit will start to flicker.
- Press button C to adjust and then button A to confirm.

Alarm hour digit

Alarm minute digit

Activating / Deactivating Alarms

- To read alarm mode, in Clock mode, press button A to select the alarm time display or the date display format.
- When display shown the alarm time, press button C once to turn ON the daily alarm with " z² " appeared.
- Press button C again will turn OFF the alarm and the alam symbol.

Date Display

Alarm Display

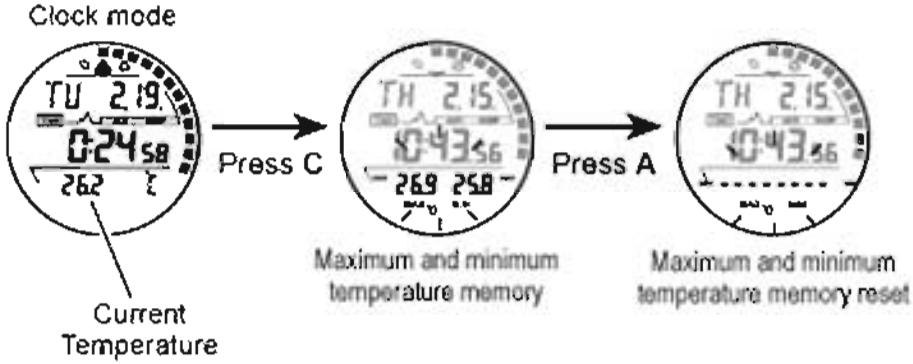
Alarm
ON/OFF

Acknowledging alarms

- When you hear the alarm,
  1. You can acknowledge it by pressing button B the alarm will stop. Now the alarm symbol is displayed constantly. The alarm will sound at the same time next day.
  2. To deactivate alarm and activate snooze function, please either press the button A, C or D. Snooze symbol " z² " starts to blink. Snooze alarm repeats for 3 times with an interval of 5 minutes each. After that the alarm will sound at the same time next day.

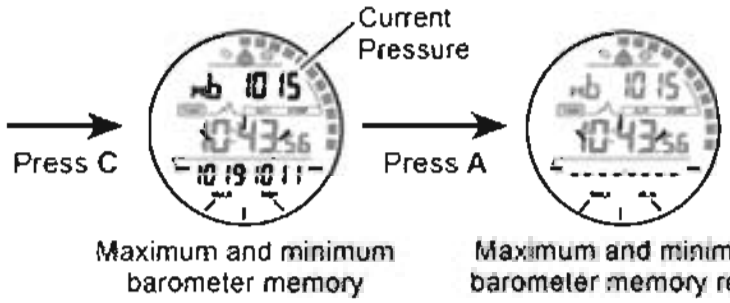
Temperature Memory Recall and Reset

- To recall maximum and minimum temperature, in Clock mode, press button C once.
- To reset the memory, press button A right after the calling.



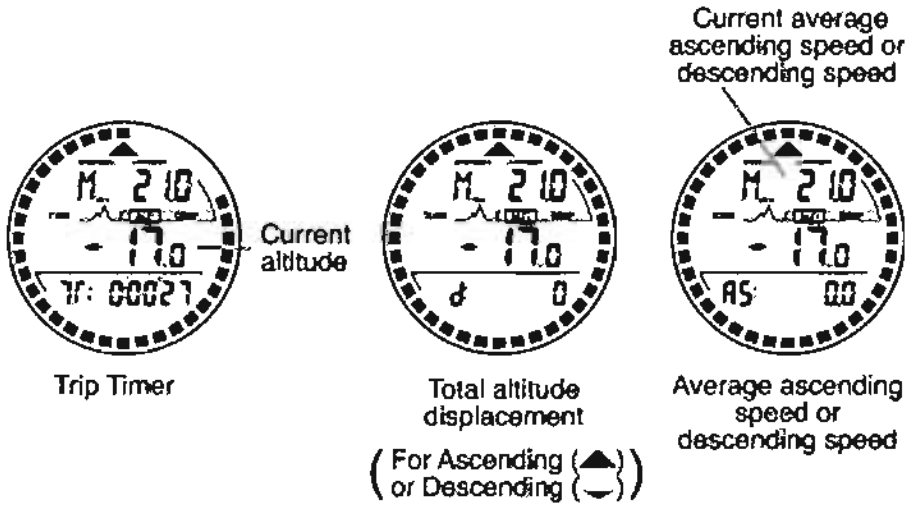
Barometer Memory Recall and Reset

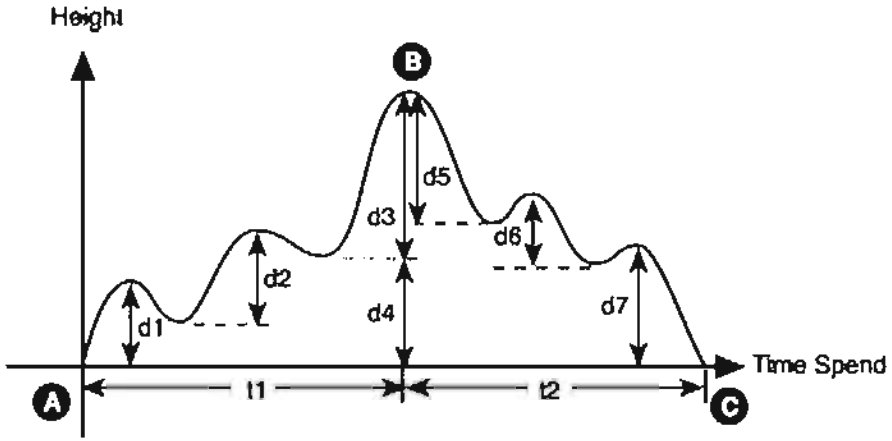
- To recall maximum and minimum barometer, in Clock mode, press button C again
- To reset the memory, press button A right after the calling.



The Digital Altimeter

- Press button D to enter the Altimeter mode.
- To set the altitude, press button C to enter T (trip timer mode) first. Press button A to stop the timer and then hold button A again until the "▲" symbol start to flicker
- Press button C to select "▲" for the ascending altitude gain counting or "▼" for the descending altitude loss counting
- Press button A to confirm and then the first digit of the altitude will start to flicker
- Press button C to adjust the digit and then press button A to confirm
- Repeat the process until you get the desire altitude reading
- To reset the altitude to sea level, press and hold the button A for 8 seconds until all digits change to zero
- To start a trip, press button C to enter trip timer mode and then press button A to start counting and press button A again to stop
- To read different trip informations, press button C to toggle ⅂ (Trip Timer), d (the total altitude displacement for the gain or the loss) and AS (average ascending speed or descending speed)
- To reset trip informations, press button C to enter trip timer mode first. Press button A to stop the timer and then hold button A again to reset the data.
- **Trip timer will be switched off automatically when difference of altitude is no bigger than 2.5m within 5 minutes.**
- **Once the trip timer is stopped for running, the altitude trip measurment will also stopped at the same time in order to save current consumption.**
- **The only way to restart the altitude trip measurment is to restart the tip timer again manually.**
- **Based on current consumption concern, the trip timer will also automatically switched off when switching to time or compass function.**
- **User should then restart the trip timer again manually in order to minimize error.**


Current average ascending speed or descending speed
Current altitude
Trip Timer
Total altitude displacement
(For Ascending (▲) or Descending (▼))
Average ascending speed or descending speed



From Ⓐ to Ⓑ , (Ascending ▲)
Average ascending speed (AS ▲) = $\frac{d3+d4}{t1}$

Total altitude displacement for ascending (d ▲) = d1+d2+d3

From Ⓑ to Ⓒ , (Descending ▼),
Average descending speed (AS ▼) = $\frac{d3+d4}{t2}$

Total altitude displacement for descending (d ▼) = d5+d6+d7

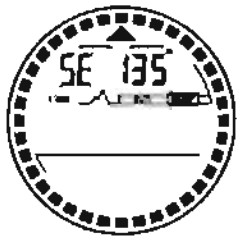
The Digital Compass

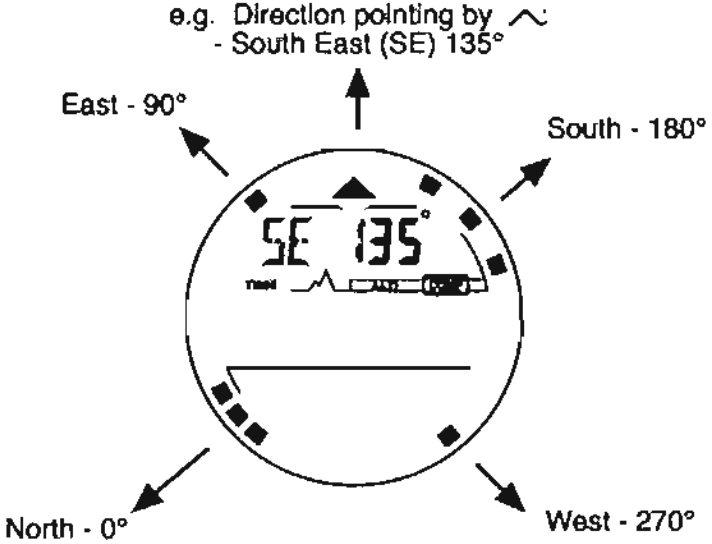
- Press button D to enter the Compass mode
- Keep the compass in horizontal level and pointing the direction by " ▲ ".
- The compass will show the direction by 3 different ways.

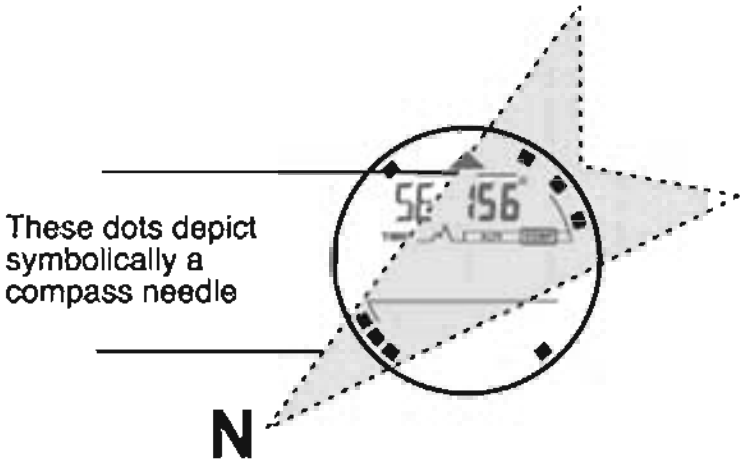
(1). Precise direction pointing by " ▲ " in degree and cardinal readout, e.g. South East (SE) 135°

(2). Precise direction of North (▪▪▪), South (▪ ▪ ▪), East (▪) and West (▪)by the ring .

- For Power Saving, the compass will automatically stop measurement around 2 minutes with full direction dots on. To start the measurement again, press button A.



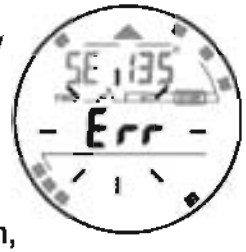




Example: Determination of North

You may symbolize the icon ▪▪▪ as the "TIP" of an needle, which always points to the north, and icon ▪ ▪ ▪ as the "TAIL" of the needle, which always points to the south. No matter the current compass's orientation is, the NORTH and SOUTH can easily be identified by ▪▪▪ and ▪ ▪ ▪ .

Compass Calibration and Environmental Interference



- It is important to know all digital compasses works with Earth's magnetic field and is very sensitive to different environments where the earth magnetic fields is distorted, such as interference by closing to heavy metal, home appliance, computer and high power cable...etc.
- To keep a high accurate heading information, you must calibrate the compass (1) when the magnetic distort message "Err" is continuously displayed (2) the numeric heading Information with a error more than 10 degree (3) when the unit is used for the first time in a vehicle so as to separate the earth's field from the interference.

How to Calibrate the Compass

- **Press button D to the Compass mode.**
- **Press and hold button A to enter calibration mode " CAL" and then press button C to start. The ring will then display and turn.**
- **Turn the unit clockwise in two circles on a level surface where it is free from unnecessary metal plate home appliance, computer and high power cable... etc. The circles do not need to be perfect circles, but must be completed in the same direction. It is also important that each circle takes a minimum of 20 seconds but less than 1 minutes to complete.**
- **Right after the calibration, press button C to confirm.**
- **Failure to do a correct calibration can result in inaccurate headings. Perform a new calibration again if a heading is suspected.**

Enter Declination angle for the true North

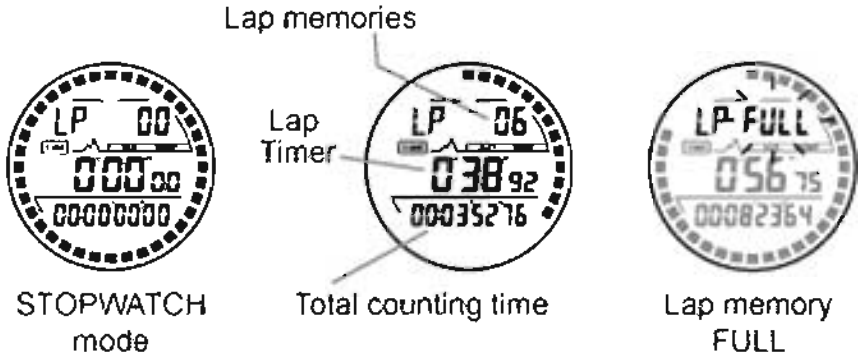
- Declination refers to the measured difference between the magnetic North and the North of the map. The local declination is given on the map margin either as easterly plus declination (E) or as westerly minus declination (W). When orienteering, the map direction is corrected by subtracting the plus declination and adding the minus declination.
- To input the value, press and hold button A to enter calibration mode " CAL" first and press button A again to confirm to enter declination setting mode " dEC".
- Right after entering the declination setting mode, a letter " E" start to flicker. Press button C to select the direction East- E or West- W and then press button A to confirm.
- An angle digits will then start to flicker. To set the angle to be offset, press button C to adjust to desire value an then press button A to confirm.
- As the declination setting will affect the direction directly, for a serious and final confirmation, press button C to turn the function " on " and then press button A again to confirm.
- In order to understand the declination effect, let us quote an example, the current direction is N 10 degree, If the declination angle is set to E 30 degree, the final will change to NE 40 degree or If the declination angle is set to W 30 degree, the final direction will change to NW 340 degree

Calibration Mode

After the ring move, turn the unit clockwise in two circles

Professional Stopwatch

- Press button **D** to enter the stopwatch mode.
- Press button **A** to start / stop the stopwatch.
- Press button **C** to record the lap memory when the stopwatch is counting.
- If the stopwatch saves over 30 laps, it will display FULL.
- To reset the stopwatch, press and hold button **A** to zero.

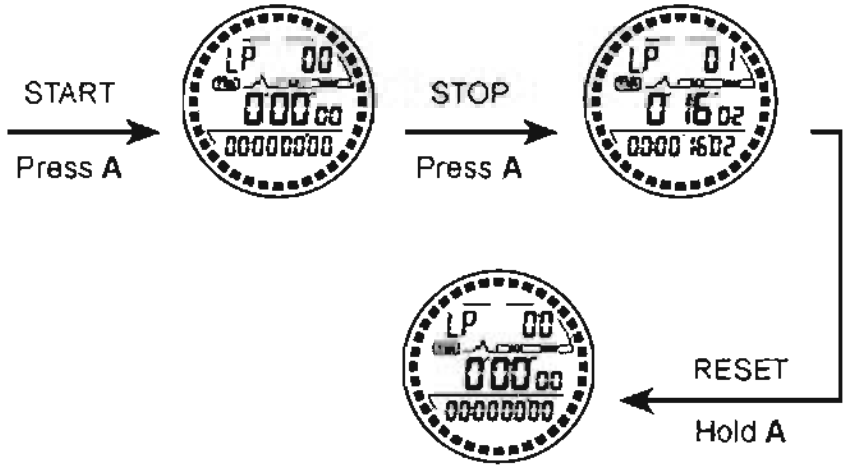


To recall the stopwatch memory

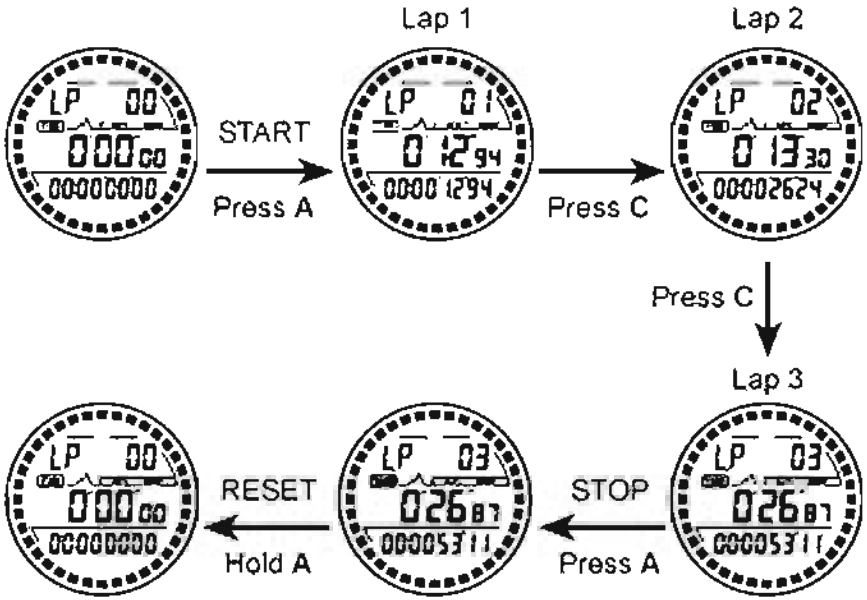
- Press button **A** to stop the stopwatch, then press button **C** to enter memory recall mode.
- Display show the record of FAST LAP, the icon " FL " and the "FAST LAP" will be displayed.
- Press button **A** to show average speed for Lap, the "AVE LAP" will be displayed.
- Press button **A** to read different lap memories.
- Press button **C** to exit the memory recall mode.

For your reference, you can following methods to take different measurement:

STANDARD MEASUREMENT : A-A-A



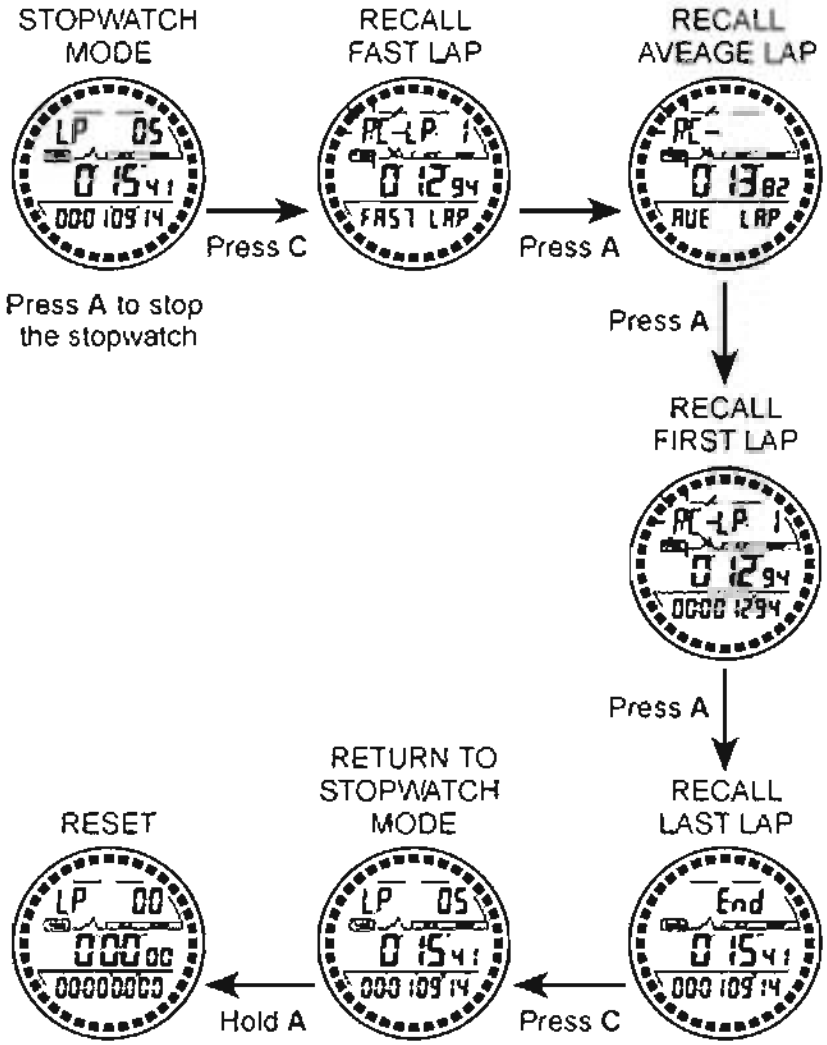
LAP TIME MEASUREMENT : A-C-C-A-A



Back Light

Press button **B** to turn ON the back light.

RECALL LAP MEMORY : C-A-A-.....A-C-A



Important notes

Compass

- **The compass must not be used near a metal or magnetic object like any other compass.**
- **Whenever error message "Err" is continuously displayed, please calibrate the compass again.**
- **Please hold the compass as horizontal as possible to get a precise direction.**

Temperature

- **The temperature displayed is the temperature of the case inside. Hence, it is influenced by your body temperature.**
- **To display the actual temperature, the watch must be taken off the hand for about 15 to 30 minutes and must not be exposed to direct sunlight.**

Altimeter

- **Unfortunately all altimeter are going to be affected by barometric pressure (unless they are GPS controlled or similar) as this is what they use to calculate their height. To offset this barometric effect on altimeter, Please keep a check and re-adjust the altimeter when you are at known heights or re-setting your watch to zero at sea-level.**